REMARKS

Initially, Applicant wishes to thank the Examiner for the detailed Final Office Action. Further, Applicant would like to thank Examiner Labbees for his courtesy in conducting an interview with Applicant's Representative Steven Wegman and Monica Ullagaddi on February 9, 2009. In this regard, Applicant's Representative discussed the failure of the Final Office Action to address dependent claims 8 and 9. Examiner Labbees agreed to re-open prosecution in the event he concludes that the present Response does not place the present application in condition for allowance and further indicated that the application would be considered to be placed in a condition for allowance if an updated search yielded no new prior art. Examiner Labbees indicated that he would contact Applicant's Representative to expedite an allowance of the application via an Examiner's amendment, if the rejection were to be maintained.

Claims 1 and 3-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over a first embodiment of LAREAU et al. (U.S. Patent No. 6,972,682) in view of a different embodiment of LAREAU, and further in view of BLEDSOE (U.S. Patent No. 5,742,237). Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over LAREAU (a first embodiment) in view of LAREAU (a different embodiment) and BLEDSOE and further in view of LASTINGER (U.S. Patent App. Pub. No. 2003/0030568).

Upon entry of the present amendment, claims 1 and 7 will have been amended. In particular, independent claims 1 and 7 will have been amended to recite further patentable subject matter to which the present application is directed. The amendments to independent claims 1 and 7 should not be considered an indication of Applicant's acquiescence as to any of the outstanding rejections. Rather, Applicant has amended

independent claims 1 and 7 to advance prosecution and to obtain an early allowance of the present application.

Applicant traverses the rejection of claims 1 and 3-7 under 35 U.S.C. §103(a) as being unpatentable over LAREAU et al. in view of BLEDSOE. According to a non-limiting embodiment of the present invention, *relative positions* of the claimed IC tags are determined. More particularly, independent claim 1 is directed to detecting an alignment and sequence of the claimed IC tags. Therefore, it is not necessary, nor is the present invention directed to calculating an absolute, coordinate location (*e.g.*, Cartesian, polar, or spherical) of an IC tag. Probe signals emitted by the claimed IC tags recited in independent claim 1 are impulse response signals. That is, the present invention enables the determination of relative positions without the necessity of bidirectional communication between IC tags. Rather, an IC tag sends probe signals to the other IC tags, which may be adjacent to the IC tag, when the IC tag's information X is specified by the interrogator, as specified in independent claim 1. The other IC tags receive the probe signal and store the information in a memory when a reception strength of said probe signal is more than a predetermined level, as specified in independent claim 1. When the interrogator sends a readout command to the other IC tag or other IC tags, the information stored in the memory is transmitted to the interrogator.

The Examiner primarily relies on LAREAU et al. as teaching the claimed combination of features. LAREAU et al. is directed to wirelessly tracking and monitoring assets. Specifically, Applicant submits that LAREAU et al. discloses a coordinate location 414 that may be in the Cartesian coordinate system (*e.g.*, includes three coordinates x, y, z) and may be programmed wirelessly from a handheld device. Further, it is submitted that LAREAU et al. discloses a remote monitoring stations (RMS)

150 that reads out the coordinate location 414 for monitoring an *absolute* location of the IC tag (as discussed, for example, col. 8, lines 31-34 of LAREAU et al.). The Examiner asserts that the system (disclosed by LAREAU) in column 7, lines 3-7 facilitates communication from a tag to the RMS only after the RMS has requested a communication and accordingly, incorporates a responder means. Further, the Examiner asserts that upon receiving a command from the disclosed RMS, data such as sensor reading and the amount by which a threshold is exceeded can be communicated back to the RMS to determine locations of the tags, and that this teaching also meets the claimed limitation noted above.

That is, LAREAU et al. discloses a system in which tags relay communication via intermediate tags. More particularly, Applicant respectfully submits that LAREAU et al. discloses that an RMS 150 can transmit a downstream communication to a destination tag 110 which is relayed from a first intermediate tag 130 to a second intermediate tag 120 and a destination tag 110. Accordingly, it is submitted that the communication described in LAREAU et al. is not solely in response to a command received from an interrogator, as specified in claim 1. Applicant further submits LAREAU et al. discloses that the destination tag 110 processes the downstream communication and replies with an upstream communication that is passed through the second intermediate tag 120 and the first intermediate tag 130 for eventual communication with the RMS 150 (*see, e.g.*, column 7, lines 7-30 of LAREAU et al.).

However, independent claim 1 recites, *inter alia*, a transmitter that sends probe signals to the other IC tags when own information X is specified by an interrogator. Independent claim 1 further recites, *inter alia*, a receiver that receives a probe signal sent out by one IC tag of the other IC tags whose information Y is specified by the

interrogator. In other words, the one IC tag of the other IC tags sends a probe signal to adjacent IC tags, when its own information X is specified by the interrogator, *but not in response to any communication received from adjacent IC tags*. Further, the one IC tag of the other IC tags receives a probe signal from an adjacent IC tag when the interrogator specifies the adjacent IC tag, *but not in response to any communication sent by the one IC tag*. Further, as discussed above, the claimed IC tags transmit probe signals and the claimed probe signals are used to detect an adjacent tag or adjacent tags, but do not determine an absolute location of the IC tags nor detect the distance between IC tags. Accordingly, Applicant respectfully submits that LAREAU et al. does not disclose or render obvious at least a transmitter that sends said probe signals to the other IC tags *when own information X is specified by the interrogator*, as recited in independent claim 1.

Applicant notes that the Examiner has still not addressed the arguments with respect to the claimed limitation that a second responder responds with the information Y of the source IC tag stored in the memory to the interrogator in response to a readout command, as recited in independent claim 1. Applicant submits that, at most, LAREAU et al. may be considered to teach that a tag responds with information relayed from another downstream or upstream tag. However, it is submitted that LAREAU et al. does not teach or suggest that the information is stored in a memory and sent to the interrogator when the readout command is received. Moreover, independent claim 1 has been amended to recite, *inter alia*, that the storage stores information Y of the one IC tag of the other IC tags until the readout command is received, the readout command specifying the one of said multiple IC tags corresponding to information X. Applicant

respectfully submits that LAREAU et al. does not teach or suggest at least these above-noted features of independent claim 1.

The Examiner interprets Figure 2 of LAREAU et al. as showing an area A (i.e. RMS and tags 110, 120 and 130). The Examiner interprets area B as being a building, such as a cargo hold, or the space within a cargo hold wherein the tags are attached to assets. However, the asserted portions of LAREAU et al. do not teach, suggest or mention two distinct areas A and B, in which area B is smaller than area A. That is, LAREAU et al. does not disclose a zone B smaller than a zone A in which an IC tag sends out probe signals to adjacent IC tags, as specified in independent claim 1. Further, probe signals become attenuated progressively with distance and the distance is relatively short (i.e., a few millimeters and a few centimeters), and accordingly probe signals are exchanged in an area B smaller than an area A.

The Examiner acknowledges that LAREAU et al. does not disclose or render obvious a storage that stores information Y of the one IC tag of the other IC tags specified as a source IC tag by the interrogator in a memory when a reception strength of said probe signal is more than a predetermined level, as recited in claim 1 and relies upon BLEDSOE to teach these features. The Examiner asserts BLEDSOE as teaching a system that relates to a tag location system to track the location of marked items in which the system comprises a monitor and one or more tags on an object, in which the monitor can get a rough idea of how far away a particular tag is by the strength of a received signal. Applicant submits that BLEDSOE fails to teach that the signal strength is that of a probe signal. Rather, the asserted portion of BLEDSOE in column 6, lines 23-29 merely discloses determining the location of a tag based on triangulation and signal strength, in particular by calculating the distance of the tag from three or more monitors.

Further, BLEDSOE does not cure the above-noted deficiencies of LAREAU et al. Applicant respectfully submits that the combination of LAREAU et al. and BLEDSOE, as proposed by the Examiner, fails to disclose (or even suggest) a storage that stores information Y of the one IC tag of the other IC tags specified as a source IC tag by the interrogator in a memory when a reception strength of said probe signal is more than a predetermined level, as recited in claim 1. Further, Applicant respectfully submits that the combination of LAREAU et al. and BLEDSOE, as proposed by the Examiner, fails to disclose (or even suggest) that relative positions of said multiple IC tags are recognized from the information X and the information Y collected via the interrogator

Accordingly, Applicant respectfully submits that independent claim 1 is allowable over LAREAU and BLEDSOE for at least the reasons noted above.

Applicant also submits that the method of independent claim 7 is allowable for reasons similar to those noted above with respect to independent claim 1, in addition to reasons related to its own recitations.

Applicant respectfully submits that each of dependent claims 3-9 are allowable at least because they depend from independent claim 1, which Applicant submits has been shown to be allowable. Each of dependent claims 3-9 are also submitted to recite further patentable subject matter. As such, allowance of the dependent claims is deemed proper for at least the same reasons noted above for independent claim 1 upon which claims 3-9 depend, in addition to reasons related to their own recitations.

Accordingly, reconsideration and withdrawal of the rejection of claims 1 and 3-7 under 35 U.S.C. §103(a) over LAREAU et al. (first embodiment and different embodiment) in view of BLEDSOE is respectfully requested.

Applicant respectfully traverses the rejection of claim 2 under 35 U.S.C. §103(a) over LAREAU et al. (first and different embodiments) and in view of BLEDSOE and further in view of LASTINGER et al. In this regard, arguments made above with respect to the rejection of claim 1 over LAREAU et al. in view of BLEDSOE are applicable insofar as claim 2 depends from independent claim 1.

Further, LAREAU et al. is directed to a method in which a fixed path is determined *a priori* and is provided to the destination tag. That is, an RMS as described in LAREAU et al. does not obtain all possible combinations of the information X and information Y, nor join any of the combinations having one side of information in common so that locations and arrangement order of said multiple IC tags are specified, as specified in claim 2.

The Examiner additionally relies upon LASTINGER. However, LASTINGER does not cure the deficiencies of LAREAU et al. or BLEDSOE. More particularly, LASTINGER does not teach two distinct communication areas with respect to a single interrogator-IC tag pair. Further, LASTINGER does not teach a communication area that is determined based on an IC tag. Specifically, the Examiner asserts that LASTINGER discloses that if a tag 130 falls in an area of overlap of two or more zones, one or more messages may include locator IDs for respective locators and accordingly, a processor can locate a tag with increased accuracy because of the limited area of overlap between zone one and zone two. However, LASTINGER does not appear to cure the deficiencies noted above with respect to LAREAU and BLEDSOE.

Accordingly, Applicant respectfully submits that claim 2 is allowable over the Examiner's combination of LAREAU et al., BLEDSOE and LASTINGER at least for the reasons set forth above. Reconsideration and withdrawal of the rejection of claim 2

under 35 U.S.C. §103(a) over LAREAU et al., BLEDSOE and LASTINGER is thus respectfully requested.

Applicant notes that the Examiner did not fully address dependent claims 8 and 9. Each of dependant claims 8 and 9 are submitted to be allowable at least insofar as each of the claims depend, directly or indirectly, from allowable independent claim 1, in addition to reasons related to their own recitations.

Applicant notes that this Reply is being submitted after a Final Office Action has been mailed. Applicant respectfully requests entry and consideration of this Reply, including the amendments provided herein, and believe such entry and consideration is proper. Applicant also respectfully requests the Examiner to reconsider and to withdraw all of the outstanding rejections made in the outstanding Final Office Action, and to allow the application to mature to a U.S. letters patent. Applicant believes that such action is now proper and called for, for at least the reasons provided below.

Applicant recognizes that Applicant cannot, as a matter of right, amend any finally rejected claims. However, Applicant also recognizes that any amendment that will place the application either in condition for allowance or in better form for appeal may be entered. At least insofar as the Examiner indicated that he would re-open prosecution for failing to address dependent claims 8 and 9, and the amendments do not introduce subject matter requiring further search and/or consideration on the part of the Examiner, Applicant respectfully submits that entry and consideration of this Reply, including amendments provided herein, is appropriate and timely.

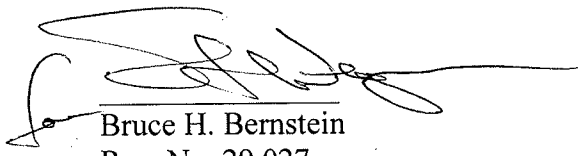
At least in view of the herein contained amendments and remarks, Applicant respectfully requests reconsideration and withdrawal of each of the outstanding objection and rejections, together with an indication of the allowability of all pending claims, in

due course. Such action is respectfully requested and is believed to be appropriate and proper.

Should an extension of time be necessary to maintain the pendency of this application, including any extensions of time required to place the application in condition for allowance by an Examiner's Amendment, the Commissioner is hereby authorized to charge any additional fee to Deposit Account No. 19-0089.

Should the Examiner have any questions concerning this Response or the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully Submitted,
Takashi TANAKA



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